

ABSTRACT OF THE DISCLOSURE

An integrated optical line card protection module uses free-space optical links to
5 thereby increase the level of integration while decreasing footprint. The module comprises a
bench, a user-side interface to an array of user fibers and a device-side interface to an array of
device fibers. The device fibers connect the module to a primary device and a redundant
device. A monitoring signal generator is provided on the bench that provides monitoring
signals. A monitoring signal detector is also on the bench that detects the monitoring signals.

10 Finally, a beam switching system is provided that selectively connects the user fibers to the
device fibers of the primary device or the device fibers of the redundant device. The preferred
configuration is in-line with the user-side interface on an opposed side of the module relative
to the device side interface. This is accomplished with translating switching system.

FOOTNOTES